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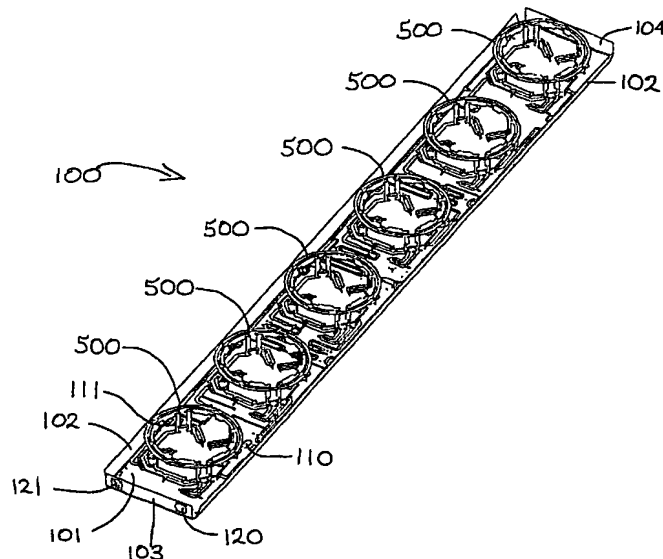
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(54) Title: IMPROVEMENTS RELATING TO DIPOLE ANTENNAS AND COAXIAL TO MICROSTRIP TRANSITIONS



(57) Abstract: The invention relates in part to a folded dipole having a dipole axis and a pair of arms which together have a profile which is concave on one side and convex on the other when viewed along the dipole axis. The dipoles may be arranged as a dipole box around a central region, typically in a generally circular or square configuration. Further elements may be placed in the dipole box or in the gaps between dipole boxes. The antenna may be a single-band antenna, or a multi-band antenna with the further elements operating in a different frequency band to the dipole boxes. The further elements may be concentric dipole boxes. The invention is particularly suited for use in a cellular base station panel antenna. A novel coaxial to microstrip transition is also described.

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